

He has given his consent to my publishing the present paper in advance of his own.

The insect appears to be most nearly related to the American genus *Lepthemis*, to which it was originally referred by Mr. McLachlan, but it differs widely in the armature of the legs. From *Orthetrum sabina*, Drury (a rather aberrant species in its genus), with which it has considerable external resemblance, it differs in the absence of supra-triangular nervules, the usually discontinuous last antenodal cross-nervule of the fore wings, and the much broader triangle of the fore wings. From *Sympetrum*, which it resembles in the shape of the triangle of the fore wings and in the upper-side of the triangle of the hind wings being distinctly separated from the lower sector of the arculus, it differs in the much longer wings, with much more numerous cross-nervures, and the long slender abdomen, much more distinctly inflated at the base. I am unable to refer the species to any of the foregoing genera, and therefore think it best to propose a new one for it without further delay.

XL.—*Descriptions of Three new Species of Spiders of the Genus Selenops, Latr.* By R. I. POCKOCK.

Selenops oculatus, sp. n.

Colour (specimen rubbed).—Carapace pale castaneous, with greyish-white hairs at the sides; eyes surrounded with black pigment; legs bright ochre-yellow, with indistinct dark bands on tibiæ; abdomen testaceous, with yellowish-white hairs above.

Carapace much higher than in *S. radiatus*, a little wider than long, its length equal to length of protarsus of fourth leg, barely equal to length of tibia of either second, third, or fourth leg. Four median *eyes* close together and forming a strongly recurved line, the inferior edge of the posteriors a little higher than those of the anteriors, about on a level with their centres; the posteriors much larger, about twice the diameter of the anteriors; distance between the anteriors equal to about half their diameter, but twice as great as that between the anteriors and posteriors; anterior lateral eyes on a level with inferior edge of anterior medians; posterior laterals very large and prominent, their diameter at least one third greater than that of the posterior medians, a little more than their own diameter above the inferior margin of the carapace.

Legs long, those of the fourth pair, measured from base of femur, four times as long as carapace; tarsi of second, third, and fourth pairs, although rubbed, apparently not scopulate; tibia of second with three pairs of inferior spines, protarsus with two pairs (first legs absent).

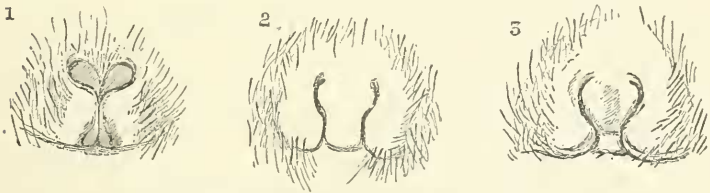
Vulva formed on the same plan as in *S. radiatus*, but with the two lappets forming the area behind the heart-shaped fovea much longer (fig. 1).

Measurements in millimetres.—Total length 12; length of carapace 5, of second leg 22, of third and fourth 21.

Loc. Hadramaut, Arabia.

A single specimen collected by Dr. Anderson's collector during the expedition of the late Mr. Theodore Bent into the Hadramaut.

Although resembling *S. radiatus* and others in the spine-armature of its leg, this new species more nearly approaches the South-African species *S. atomarius* and *Spenceri* in the arrangement of its eyes. These organs, however, differ in relative size and position from those of all the species known to me.



Vulva of (1) *S. oculus*, (2) *S. vigilans*, (3) *S. Kraussii*.

Selenops vigilans, sp. n.

Coloured as in *S. radiatus*, which it closely resembles structurally, with the same spine-armature of the first and second leg—that is to say, with three pairs of spines on the underside of the tibiae and two pairs on the protarsi; but the posterior median eyes are larger as compared with the anterior medians, are much closer to them and form a more strongly recurved line; the posterior lateral eyes are also larger and more prominent.

Vulva very different from that of *S. radiatus*, the lateral lobes being widely separated behind by a prolongation of the median sclerite (fig. 2).

Measurements in millimetres.—Total length 14; length of carapace 6.2, of first leg 20, of fourth leg 21.

Loc. Giriama, near Fuladoya, Masailand (*J. W. Gregory*).

Selenops Kraussii, sp. n.

In size and colour much resembling *S. radiatus*, Latr.; the legs strongly banded, femora with three black stripes, tibiæ with two.

Eyes of very nearly the same relative size and position as in *S. vigilans*, the four medians more strongly recurved than in *radiatus*, the posteriors very noticeably larger than the anteriors, the diameter being nearly one third longer; a line touching the lower rims of the posteriors would pass about through the centres of the anteriors; posterior lateral eyes not so prominent as in *vigilans*.

Tibiæ of first and second legs with five or six pairs of spines below; protarsus with three pairs.

Vulva as in fig. 3, the median area not so wide as in *radiatus* and passing posteriorly between the lateral lobes or lappets, which thus do not unite.

Loc. Cape Colony (*Dr. Krauss*).

Allied to *S. atomarius*, Simon, from Port Elizabeth (Bull. Soc. Zool. France, xii. p. 466, 1887), in the spine-armature of the legs, but with the four median eyes much less strongly recurved and farther apart, the anterior laterals closer to the edge of the clypeus, &c. (see Hist. Nat. Araignées, ii. pl. i. p. 25).

S. fugitivus of Walckenaer (Ins. Apt. i. p. 546), from Caffraria, may be identical either with *S. atomarius*, *S. Spenceri*, or *S. Kraussii*, or with neither.

The Tropical-African species of *Selenops* known to me may be distinguished as follows:—

- a. Protarsus of legs of first and second pairs with 2 pairs of spines; tibia with 3 pairs.
 - a¹. Lateral lobes of vulva meeting, or almost so, in the middle line and circumscribing a heart-shaped area; four median eyes subequal in size, less strongly recurved, the posterior farther from the medians *radiatus*, Latr.
 - b¹. Lateral lobes of vulva widely separated posteriorly; four median eyes noticeably unequal in size, the posteriors larger than the anteriors and closer to them *vigilans*, sp. n.
- b. Protarsus of first and second legs with 3 pairs of spines; tibia with 5-7 pairs.
 - a². Tibia with 7 pairs of spines; lobes of vulva fusing posteriorly and circumscribing an oval heart-shaped area, behind which they form a broad plate; eyes of ocular quadrangle very strongly recurved, posteriors much larger than the medians, lower rim of posteriors on a level with upper rim of anteriors *Spenceri*, Poc

- b². Tibia with 5-6 pairs of spines; lobes of vulva separated posteriorly by a prolongation of the median sclerite; eyes of ocular quadrangle much less strongly recurved, inferior edge of posteriors on a level with centre of anteriors Kraussu.

The British Museum has examples of *S. radiatus*, Latr. (= *egyptiacus*, Aud.) from the following localities in Tropical Africa:—E. Africa (*Capt. Speke*); Kinyamholo, Lake Tanganyika (*W. H. Nutt*); Nyika plateau, Nyasaland, 6000-7000 feet (*H. H. Johnston*). We also possess many examples from the following localities:—Cape Verde Islands (*Lieut. Boger* and *F. O. P. Cambridge*); Bushire (*Karachi Mus.*); Bareilly, India (*G. T. P. Cambridge*); Dahanee, Thana District (*A. G. Edie*); and Tharrawaddy (*E. W. Oates*). The specimens from Tharrawaddy were described by Thorell as *S. birmanicus*.

MISCELLANEOUS.

On the Geographical Distribution and the Evolution of Peripatus.
(Preliminary Note.) By E.-L. BOUVIER.

THE Onychophora are the terrestrial Articulata which approach most nearly to the Annelids; zoologists are to-day unanimous in considering them as very primitive animals, and, although their remains are unknown in the fossil state, it seems natural to trace back their appearance to a very distant epoch. Distributed in America (Antilles, Central, and a portion of South America), Africa (in the region of the Cape), and in Oceania (from Eastern Australia into New Zealand), they have been considered hitherto as very distinct one from the other according to the area which they occupy; and Mr. Pocock, attributing this fact to their great antiquity, has taken the step of dividing them into three genera, each of which would be peculiar to one of the three geographical zones mentioned above.

The object of this note is to show that this narrow localization does not exist, and that the Onychophora have undergone progressive evolution in the course of the ages, while they receded from their centre of origin.

The specimens which have enabled me to attack this problem were collected in Africa by the lamented M. Thollon, who presented them to the Paris Museum; they belong to a new species, which I propose to call *Peripatus Tholloni*, in memory of the brave and unfortunate explorer by whom it was discovered.

Since this curious species is intermediate between the American forms and those of the Cape, I shall pass successively in review the characters which have rendered it possible, up to the present day, to distinguish the species from the various regions.